In the Claims

1. (Currently Amended) A method of trimming selected frames of a Motion Pictures Expert Group (MPEG) video stream during decoding comprising:

receiving the video stream including I, P, and B frames, wherein the I, P, and B frames are compressed according to the MPEG standard;

decoding only predetermined portions of each B frame of the video stream, the predetermined portions determined by display resolution; and

scaling portions of the I and P frames retrieved from decoded I and P frames, wherein the size of the retrieved I and P frame portions are based on the only predetermined portions of each B frame, the scaling comprises vertical filtering.

2. (Original) The method of claim 1 wherein the predetermined portions comprises portions to be displayed.

3. (Original) The method of claim 1 further comprising:

storing the decoded portions of B frame data; and

fully decoding an I frame and a P frame of the video stream.

4. (Original) The method of claim 1 wherein decoding only predetermined portions of each B frame of the video stream comprises decoding the predetermined portions of each B frame by vertical slice.

5. (Original) The method of claim 4 wherein decoding the predetermined portions of each B frame by vertical slice comprises:

determining picture size information including a left end, a left most position, a right most position, and a right end; and

decoding predetermined portions of each vertical slice, wherein decoding predetermined portions of each vertical slice comprises:

skipping a first portion between the left end and the left most position for the vertical slice; and

decoding a second portion between the left most position and the right most position for the vertical slice; and

skipping a third portion between the right most position and the right end.

6. (Original) The method of claim 5 wherein the picture size information is selected from the group consisting of inverse discrete cosine transform (IDCT) coefficients, motion vector information, macro block header information, or current macro block position information.

7. (Original) The method of claim 6 further comprising:

performing an inverse discrete cosine transform (IDCT) on the decoded portions of the B frame; and

adding an output of the IDCT with data in a spatially shifted location in an anchor frame as instructed by the motion vector information.

8. (Original) The method of claim 1 wherein the video stream is a MPEG2 video stream.

9. (Previously Presented) A method of trimming a B frame of a Motion Pictures Expert Group (MPEG) video stream during decoding comprising:

receiving the video stream and picture information;

resetting a macro block counter; and

decoding the predetermined portions of the B frame by vertical slice, the predetermined portions determined by display resolution, wherein the B frame is compressed according to the MPEG standard and decoding the predetermined portions of each vertical slice comprises:

finding a vertical slice header code;

starting at a left end of the vertical slice;

skipping decoding until a macro block counter value is equivalent to a left most position of the vertical slice;

decoding when the macro block counter value exceeds the left most position and until the macro block counter value reaches a right most position of the vertical slice;

stopping decoding when the macro block counter value reaches a right most position of the vertical slice; and

skipping decoding when the macro block counter value exceeds the right most position and until the macro block counter value reaches a right end of the vertical slice.

10. (Currently Amended) A machine-readable medium having executable instructions to cause a computer to perform a method comprising:

receiving the video stream including I, P, and B frames, wherein the I, P, and B frames are compressed according to a Motion Pictures Expert Group (MPEG) standard;

decoding only predetermined portions of each B frame of the video stream, the predetermined portions determined by display resolution; and

scaling portions of the I and P frames retrieved from decoded I and P frames, wherein the size of the retrieved I and P frame portions are based on the only predetermined portions of each B frame, the scaling comprises vertical filtering.

11. (Original) The machine-readable medium of claim 10 wherein the predetermined portions comprises portions to be displayed.

12. (Original) The machine-readable medium of claim 10 further comprising:

storing the decoded portions of B frame data; and

fully decoding an I frame and a P frame of the video stream.

13. (Original) The machine-readable medium of claim 10 wherein decoding only predetermined portions of each B frame of the video stream comprises decoding the predetermined portions of each B frame by vertical slice.

14. (Original) The machine-readable medium of claim 13 wherein decoding the predetermined portions of each B frame by vertical slice comprises:

determining picture size information including a left end, a left most position, a right most position, and a right end; and

decoding predetermined portions of each vertical slice, wherein decoding predetermined portions of each vertical slice comprises:

skipping a first portion between the left end and the left most position for the vertical slice; and

decoding a second portion between the left most position and the right most position for the vertical slice; and

skipping a third portion between the right most position and the right end.

15. (Previously Presented) A machine-readable medium having executable instructions to cause a computer to perform a method comprising:

receiving the video stream and picture information;

resetting a macro block counter; and

decoding predetermined portions of the B frame by vertical slice, the predetermined portions determined by display resolution, wherein the B frame is compressed according to the MPEG standard and decoding the predetermined portions of each vertical slice comprises:

finding a vertical slice header code;

starting at a left end of the vertical slice;

skipping decoding until a macro block counter value is equivalent to a left most position of the vertical slice;

decoding when the macro block counter value exceeds the left most position and until the macro block counter value reaches a right most position of the vertical slice;

stopping decoding when the macro block counter value reaches a right most position of the vertical slice; and

skipping decoding when the macro block counter value exceeds the right most position and until the macro block counter value reaches a right end of the vertical slice.

16. (Currently Amended) A video decoder comprising:

a variable length decoding unit to receive a video stream and decode symbols in the video stream, the variable length decoding unit including a skip judge to instruct units within the video decoder to skip decoding, and wherein only predetermined portions of a B frame of the video stream are decoded and the B frame is compressed according to the MPEG standard, the predetermined portions determined by display resolution;

a scaling unit to scale portions of I and P frames retrieved from decoded I and P frames, wherein the size of the retrieved I and P frame portions are based on the only predetermined portions of each B frame, the scaling comprises vertical filtering; and

a picture layer decoding unit to receive at least one of information from the variable length decoding unit and information from a system controller.

17. (Previously Amended) The video decoder of claim 16 further comprising a macro block counter in the variable length decoding unit to count macro blocks in each vertical slice of the B frame.

18. (Original) The video decoder of claim 17 wherein the skip judge gives instructions to skip decoding by macro block.

19. (Currently Amended) The video decoder of claim 16 further comprising awherein the scaling unit tofurther- performs vertical and-horizontal filtering to generate a target frame size according to a scaling ratio provided by the picture layer decoding unit.

20. (Original) The video decoder of claim 16 further comprising a formatter to configure decoded data in a predetermined format.

21. (Previously Amended) The video decoder of claim 16 further comprising a reconstruction unit to receive information from the variable length and picture layer decoding unit, perform an inverse discrete cosine transform (IDCT) on the decoded portions of the B frame, and add an output of the IDCT with data in a spatially shifted location in an anchor frame as instructed by motion vector information.

22. (Previously Amended) The video decoder of claim 16 wherein the variable length decoding unit comprises:

a symbol decoder to receive the video stream and decode symbols in the video stream;

a picture layer syntax parser to determine information in the video stream higher than a macro block layer, the picture layer syntax parser passing the information to the picture layer decoding unit; and

a macro block syntax parser to determined information at the macro block layer and below the macro block layer.

23. (Original) The video decoder of claim 16 wherein the predetermined portions of the B frame to be decoded include portions between a left most end and a right most end on each of a plurality of vertical slice layers of the B frame.

24. (Original) The video decoder of claim 16 wherein the video stream is an MPEG2 video stream.

25. (Currently Amended) A system to decode, convert, and format a video stream for display comprising:

a demultiplexer to receive and extract information in a layer of the video stream, the video stream including I, P, and B frames;

a video decoder to decode a video stream received from the demultiplexor, the video decoder decoding only predetermined portions of each B frame of the video stream and the B frame is compressed according to the MPEG standard, the predetermined portions determined by display resolution;

a scaling unit to scale portions of I and P frames retrieved from decoded I and P frames, wherein the size of the retrieved I and P frame portions are based on the only predetermined portions of each B frame, the scaling comprises vertical filtering; and

a digital to analog converter to convert a decoded video signal from the video decoder to an analog signal to be displayed on a display device.

26. (Previously Amended) The system of claim 25 wherein the video decoder comprises:

a variable length decoding unit to receive a video stream and decode symbols in the stream, the variable length decoding unit including a skip judge to instruct units within the video decoder to skip decoding, and wherein only predetermined portions of a B frame of the video stream are decoded; and

a picture layer decoding unit to receive at least one of information from the variable length decoding unit and information from a system controller.

27. (Previously Amended) The system of claim 26 wherein the video decoder further comprises a macro block counter in the variable length decoding unit to count macro blocks in each vertical slice of the B frame.

28. (Original) The system of claim 27 wherein the skip judge gives instructions to skip decoding by macro block.

29. (Currently Amended) The system of claim 26 wherein the ~~video decoder further comprises a~~ scaling unit ~~to~~ further performs ~~vertical and~~ horizontal filtering to generate a target frame size according to a scaling ratio provided by the picture layer decoding unit.

30. (Original) The system of claim 26 wherein the video decoder further comprises a formatter to configure decoded data in a predetermined format.

31. (Previously Amended) The system of claim 26 wherein the video decoder further comprises a reconstruction unit to receive information from the variable length and picture layer decoding unit, perform an inverse discrete cosine transform (IDCT) on the

decoded portions of the B frame, and add an output of the IDCT with data in a spatially shifted location in an anchor frame as instructed by motion vector information.

32. (Previously Amended) The system of claim 26 wherein the variable length decoding unit comprises:

     a symbol decoder to receive the video stream and decode symbols in the video stream;

     a picture layer syntax parser to determine information in the video stream higher than a macro block layer, the picture layer syntax parser passing the information to the picture layer decoding unit; and

     a macro block syntax parser to determined information at the macro block layer and below the macro block layer.

33. (Original) The system of claim 25 wherein the predetermined portions of the B frame to be decoded include portions between a left most end and a right most end on each of a plurality of vertical slice layers of the B frame.

34. (Original) The system of claim 25 the video stream is an MPEG2 video stream.